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Masahiro Ishida

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EXAMINER

NGUYEN, TUNG X

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/980,891

Applicant(s)

ISHIDA ET AL.

Examiner

Tung X Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-14 and 17-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-14 and 17-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### Election/Restrictions

1. Applicant's election without traverse of species I of the figures 20-24, 35, 37, and 39 including claims 1-2,5-14,17-25 in Paper No. 6 is acknowledged.
2. Claims 3-4, 15-16, 26-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species II, III, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

### Specification

3. The disclosure is objected to because of the following informalities:

On page 69, lines 5, 10, 13, "v()" should read --- v(+)--; and lines 27 "τ()" should read --- τ(+)--.

Appropriate correction is required.

### Claim Objections

4. Claims 5, 17 are objected to because of the following informalities: These claims 5, and 17 depend on the canceled claims. Appropriate correction is required.

### Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-2, 5-14, 17-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear **"the electric potential of which** change in accordance with change of said supplied test pattern, to be corresponding to said test pattern sequence" recited in the claims 1, 13, 25, where does **"the electric potential of which"** come from? is it the different from **a power supply voltage** recited in these claims 1, 13, 25?

To apply the art examiner assumes that **the electric potential is the same with a power supply current value.**

Claims 1, 13, 25 recited the limitation "the electric potential". There is insufficient antecedent basis for this limitation in the claim.

The other claims are rejected as being dependent to rejected claims 1, 13, 25.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 6, 13, 18, are rejected under 35 U.S.C. 102(e) as being anticipated by Yamagishi (u.s.p 6,246,248)

As to claims 1, 6, 13, 18, Yamagishi discloses in Fig. 1, a tester for detecting an abnormal power supply current in a device under test comprising: a means (14) for applying a power supply voltage to said semiconductor IC (DUT); a means (12) for supplying a test pattern sequence having a plurality of test patterns to said semiconductor IC (col. 4, lines 30-40); a means (172) for storing an analysis point included in said IC the voltage value converted from the power supply current value in accordance with change of said supplied test pattern, to be corresponding to said test pattern sequence (col. 5, lines 1-15); a transient power supply current tester (170) for measuring a transient power supply current generated on said semiconductor IC in accordance with the change of said test pattern and determining whether said transient current shows abnormality or not (col. 4, lines 10-15 and 63-67); and a fault location presuming unit (via 15, and 16) for presuming a fault location out of said analysis points based on said test pattern sequence, where the transient power supply current shows abnormality, and said analysis points stored to be corresponding to said test pattern sequence (col. 4, lines 40-44).

9. The method is considered inherent in the structure.

***Allowable Subject Matter***

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10. Claims 2, 7-12, 14, 17, 19-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

As claims 7-12, 14, 17, 19-25, the prior art does not teach or suggest the fault analysis apparatus a) wherein the transient power supply current tester determines that said transient power supply current is abnormal when pulse width of the transient power supply current is over a predetermined value; b) means for deleting said analysis points corresponding to the test pattern sequence, where said transient power supply current does not show abnormality, from said analysis points corresponding to the test pattern sequence where said transient power supply current shows abnormality; c) wherein said means for storing analysis points stores a logic device and a signal line, whose output changes in accordance with a change of supplied test pattern, as an analysis point, wherein the logic device is to be corresponding to said test pattern sequence in said semiconductor IC; in combination with the other claimed features.

### ***Conclusion***


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X Nguyen whose telephone number is (703) 305-3337. The examiner can normally be reached on 8:30am-5:00pm M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703)-308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5841 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TN  
April 28, 2003



**KAMAND CUNEO**  
**SUPERVISORY PATENT EXAMINER**  
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